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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,527	05/01/2007	**Susan Kalled**	08201.0042-00000	3828

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EXAMINER	
CHANDRA, GYAN	

ART UNIT	PAPER NUMBER
1646	

MAIL DATE	DELIVERY MODE
12/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,527	KALLED ET AL.	
	Examiner	Art Unit	
	GYAN CHANDRA	1646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,18 and 20-34* is/are pending in the application.

4a) Of the above claim(s) *20-29 and 34* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16, 18 and 30-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/19/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group 2 (claims 1-16 and 18-35) and the election of species anti-BAFF receptor antibody and B cell hyperplasia in the reply filed on 11/12/2008 is acknowledged. Applicant, on page of 9 of the Response filed on 11/12/08, says that the restriction requirement between Group I and II was improper because LymphoStat-B is a species of BAFF-specific antibody and that applicant has cancelled claim 17 which recited the species LymphoStat-B. It is noted that the office action of 10/15/2008 did not require the cancellation of claim 17, and that it was applicant's decision to cancel claim 17.

The requirement is still deemed proper and is therefore made FINAL.

Status of Application, Amendments, And/Or Claims

Claims 1-16, 18, and 20-34 are pending.

Claims 7, 9-14, 20-29 and 34 are withdrawn from further consideration as being drawn to a non-elected invention.

Claims 1-6, 8, 18, and 30-33 are being examined to the extent they read on the elected species (i.e., anti-BAFF receptor antibody).

Information Disclosure Statement

The Information Disclosure Statement (IDS) of 04/19/2006 has been considered.

Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title recites "Therapeutic Regimens for Baff antagonists." The following title, for example, is suggested: A method for treating an autoimmune disease comprising administering a BAFF antagonist.

Claim Objections

Claims 1 and 30-32 are objected to because of the following informalities:

Claims 1, 30-32 are objected for reciting a non-elected invention (a soluble BAFF receptor).

The Examiner suggests that syntax of claim 1 can be improved by describing a term first followed by placing an abbreviated form of the description in a parenthesis (e.g., B cell activating factor (BAFF)).

Applicant would need to delete the non-elected matter at the time of allowance.

Claim Rejections - 35 USC § 112-*written description*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8, 15-16, 18, and 30-33 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The written description is not commensurate in scope with a method of treating a patient having any immunological disorder comprising administering an effective amount of any anti-BAFF receptor antibody.

The claims recite the use of any "anti-BAFF receptor antibody". The term BAFF as broadly interpreted includes all functional equivalents regardless of the structure. Further, there are at least three different BAFF receptors, for example BCMA, BAFFR and TACI as supported in claim 20. To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. Some of the factual considerations that are weighed when determining a written description include the level of skill and knowledge in the art, the disclosure of complete or partial structures, the disclosure of physical and or chemical properties, adequate disclosure of the functional characteristics, the correlation between structure and function, and disclosure of methods of making.

The specification fails to disclose any antibody against any BAFF receptor that can treat a patient having an immunological disorder. Mere function (B-cell activating factor receptor) does not describe a structure of a receptor. The specification does not disclose any functional domain of any of BAFF receptors against which an antibody could be used for the treatment of any immunological disorder or disease. Because other lymphokines are known to have B cell activating properties, the term "B cell activating" as being used instantly does not distinguish one activating factor from another.

Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

Vas-Cath Inc. V. Mahurka, 19 USPQ2d 1111, states that applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention, for purposes of the written description inquiry, is *whatever is now claimed* (see page 1117). The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (see Vas-Cath at page 1116).

The courts have held that in these instances, the specification lacks written description see *Enzo Biochem Inc. v. Gen-Probe Inc.* 63 USPQ2D 1609 (CAFC 2002) and *University of Rochester v. G.D. Searle & Co.* 69 USPQ2D 1886 (CAFC 2004). When the genus of functional equivalents is vast and compounds are claimed by function alone (binding to B cell activating factor) and the specification lacks a known or disclosed correlation between structure and function, the written description of the specification does not convey possession of the claimed genus.

Claim Rejections - 35 USC § 112-*lack of enablement*

Claims 1-6, 8, 15-16, 18, and 30-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In In re Wands, 8USPQ2d, 1400 (CAFC 1988) page 1404, the factors to be considered in determining whether a disclosure would require undue experimentation include: (1) Nature of the invention, (2) the state of the prior art, (3) the predictability or lack thereof in the art, (4) the amount of direction or guidance present, (5) the presence or absence of working examples, (6) the breath of the claims, (7) the quantity of experimentation needed, (8) relative skill of those in the art.

The instant disclosure fails to meet the enablement requirement for the following reasons:

The instant claims are broadly drawn to a method of treating a patient having any immunological disorder comprising administering a therapeutically effective amount of any anti-BAFF receptor antibody.

The state of the prior art and the predictability or lack thereof in the art: The scope of any immunological disorder or disease includes both systemic autoimmunity and organ-specific autoimmunity (Sevach, Fundamental Immunology, chapter 34, page 1089). With respect to systemic autoimmunity, systemic autoimmunity is mediated both by autoantibodies and by self reactive T cells (Cohen, Fundamental Immunology,chapter 33, page 1067) teaches that it seems likely that direct autoreactive T-cell injury is an important part of many of the autoimmune diseases and there currently is a poor understanding of the specification of the regulation of T cells mediating systemic autoimmune disease. Cohen also teaches that it is unlikely that a single explanation is adequate to account for the diverse phenomena described as systemic autoimmunity. Cohen teaches that autoantibodies to self proteins may serve

important immunological functions as has been shown for rheumatoid factor (RF). RF levels rise promptly after immunization with foreign antigens and is commonly observed in the serum of patients with chronic infection. RF probably serves to eliminate immune complexes (page 1068 column 2). As such, RF is not solely an indicia of autoimmune arthritis and does not appear to be a pathogenic antibody. Despite the wealth of information on autoantibodies and their use in diagnosis of immune disorders and inflammation, the existence of an association with a corresponding disease does not mean that the autoantibody in question actually causes the disease (Schwartz et al "Fundamental Immunology", 1989, page 837). Therefore, it would be unpredictable to use simply any antibody against any BAFF receptor to treat a patient having an autoimmune disease.

The amount of direction and guidance present and the presence or absence of working examples: Given the teachings found in the art, detailed teachings are required to be present in the disclosure in order to enable the skilled artisan to practice the invention as claimed. These teachings are absent. The SNF1 animal of the specification demonstrated SLE-like autoantibodies (examples 5 of the specification). However the induction of autoimmune disease by immunization of animals with any of the ubiquitous autoantigens, even those that are immunogenic in the animal has not been demonstrated to generate a systemic autoimmune disease. The specification discloses that the administration of BAFFR-Fc increases survival and improves renal function of SNF1 mice (Example 1 and 2) and [0062]. Further, while the chronic production of BAFF in a disclosed animal model provides for some indicia of a systemic

autoimmune disease or some increase in systemic lupus erythromatosis (SLE), it does not mean that BAFF is similarly increased in individuals with any immunological disorder. There is no evidence that BAFF is increased in patients with any other autoimmune disease, systemic or organ-specific. Other cytokines are known to have effects on B cell growth and immunoglobulin production and therefore, it is not clear that removing one from a complex milieu of cytokines will be effective to treat autoimmune disease. Further, the art recognizes that autoantibodies are not necessarily pathogenic, that immunizing with autoantigens does not produce systemic autoimmunity, there is no showing that BAFF levels are actually elevated in animals with autoimmune disease and therefore the skilled artisan would have reason to doubt that antibodies against BAFF receptor would be effective to treat any autoimmune disorder.

The breadth of the claims and the quantity of experimentation needed:

Due to the large amount of experimentation necessary to make a representative number antibodies against any BAFF receptor that can predictably treat a patient having an immunological disorder, the lack of demonstration that any antibody against BAFF receptor provides a therapeutic benefit to a patient having an immunological disorder, one skilled in the art would be unable to practice the invention as claimed.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 5-6, 15, 30-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 60, 61 and 75-80 of copending Application No. 11/065,669. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is a method of treating a patient having any immunological disorder comprising administering a therapeutically effective amount of any anti-BAFF receptor antibody, wherein said patient is a human, wherein the immunological disorder is an autoimmune disorder, wherein the BAFF receptor is BAFF receptor. Therefore, it would have been prima facie obvious to one of the skill in the art to use an antibody against a BAFF receptor for treating an immunological disorder. Additionally, one of the skill in the art would have been motivated to use an antibody against a BAFF receptor as taught in claim 75 of US 11/065,669 to treat Sjogren's syndrome which is an autoimmune disorder. Additionally, one of the skill in the art would be motivated make a monoclonal antibody using recombinant technology because it

results in a high yield and easier make to make than hybridoma technology. Because such antibodies are to treat human patients, one skill in the art would use humanized antibodies or human constant regions to avoid any unwanted side-effect.

This is a provisional obviousness-type double patenting rejection.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GYAN CHANDRA whose telephone number is (571)272-2922. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on (571) 272-0835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Robert Landsman/
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